

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018704**Date Inspected:** 12-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and Tower Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 10

This QA Inspector randomly observed the following work in progress in Bay 10:

FCAW welding of weld joint BK004A-025-008 located on PCMK OBG BK004-025. Welder was identified as 040533. QC was identified as ZPMC CWI Xu Le Feng (QC1). Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Li Jun (QCA1), who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2132-ESAB as verbally identified by QCA1.

FCAW welding of weld joints BK004A-028-004, 008, 013, 038 located on PCMK OBG BK004-028. Welder was identified as 040302. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2132-ESAB as verbally identified by QCA1.

FCAW welding of weld joints BK004A-027-004, 008, 013, 038 located on PCMK OBG BK004-027. Welder was identified as 052075. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2132-ESAB as verbally identified by QCA1.

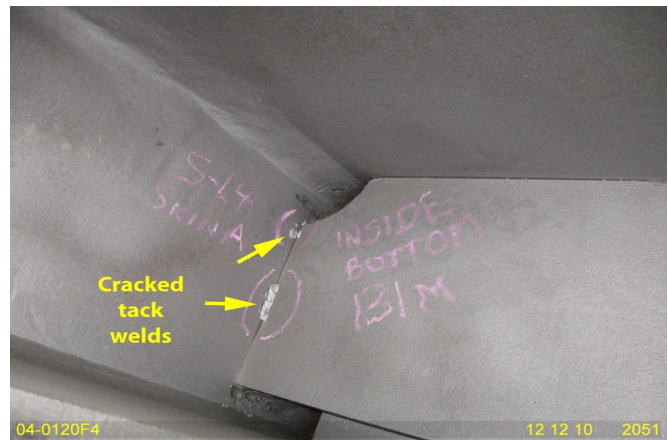
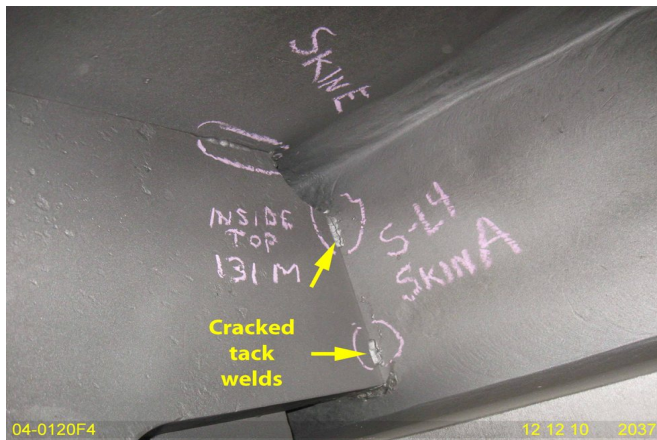
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Blast Shop 1

ZPMC requested Caltrans personnel to perform visual inspections of south tower, lift 4 from the top end at 146M elevation to the bottom of 130M double diaphragm. At approximately 2030 hours to 2130 hours, following the initial blast cleaning of the steel surfaces, several QA Inspectors, including this QA Inspector, performed random visual inspections of these areas. ABF and ZPMC Inspectors were present and performing visual inspections of the areas noted above. ABF Representative Xiao Jun Peng (BABF) and ZPMC QC Sun Zi Wang (BQC) informed this QA Inspector that they would be documenting all weld repairs and would provide this to the QA Inspectors with a copy of the documentation. This QA Inspector visually observed several areas that required grinding to resolve visual weld spatter, arc strikes, shallow nicks, scrapes, rough edges of unground welds, and sharp edges of ground welds. These areas were clearly marked with chalk as either “grind” or “grind and perform magnetic particle testing (MT)” using the letter G or the letters G+MT, respectively. This QA Inspector was notified that the above noted areas had been ground and MT had been performed. This QA Inspector randomly visually verified that the work had been performed. This QA Inspector observed 4 tack welds inside at the top and bottom of the 131M double diaphragm to skin A showing 2mm to 3mm cracks. BABF informed this QA Inspector that the areas needed to be clearly marked as needing to be ground off, MT performed, photographed, and documented. See photos below. Weld repairs were observed by other inspectors. All locations were documented by BQC and BABF. A copy of the documentation was presented to the QA Inspectors.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

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Inspected By: Goulet, George

Quality Assurance Inspector

Reviewed By: Carreon, Albert

QA Reviewer